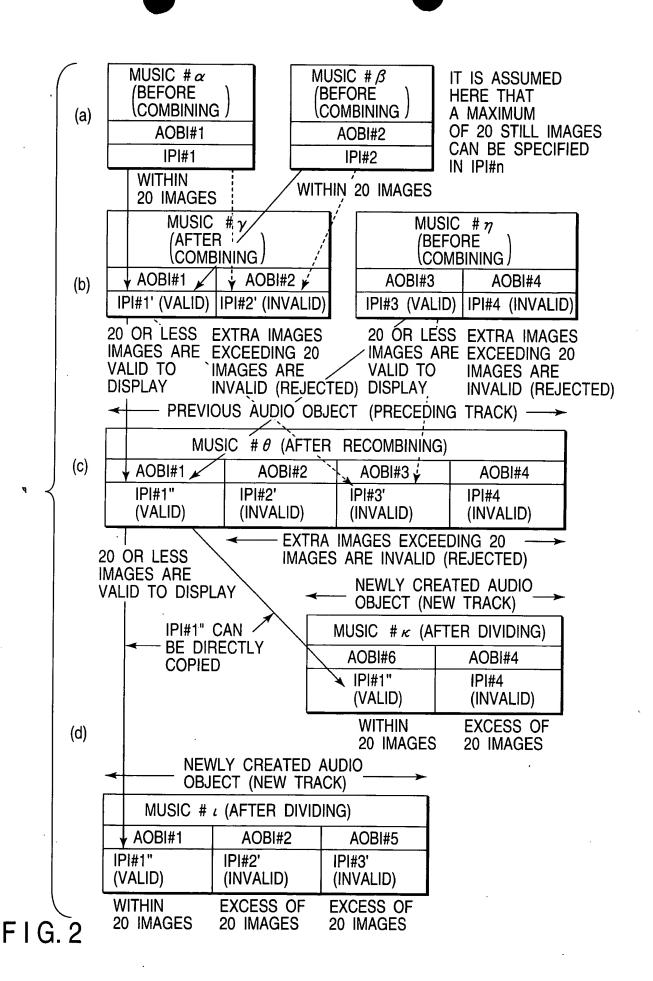
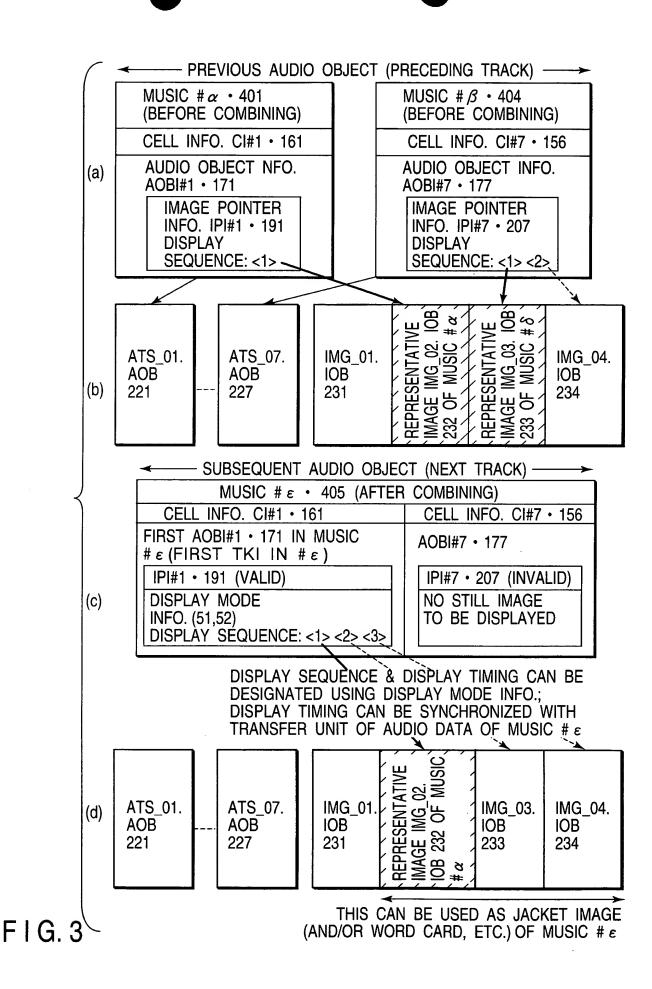


FIG. 1





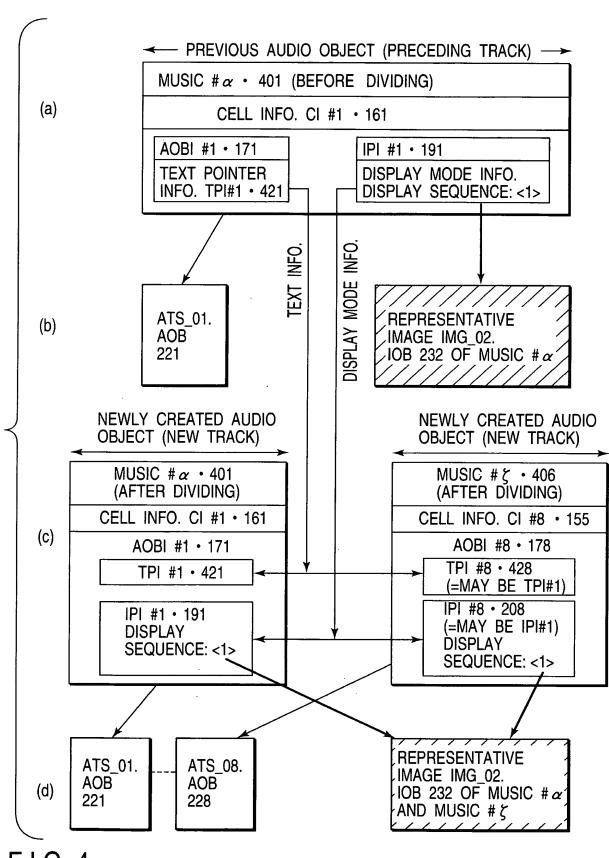
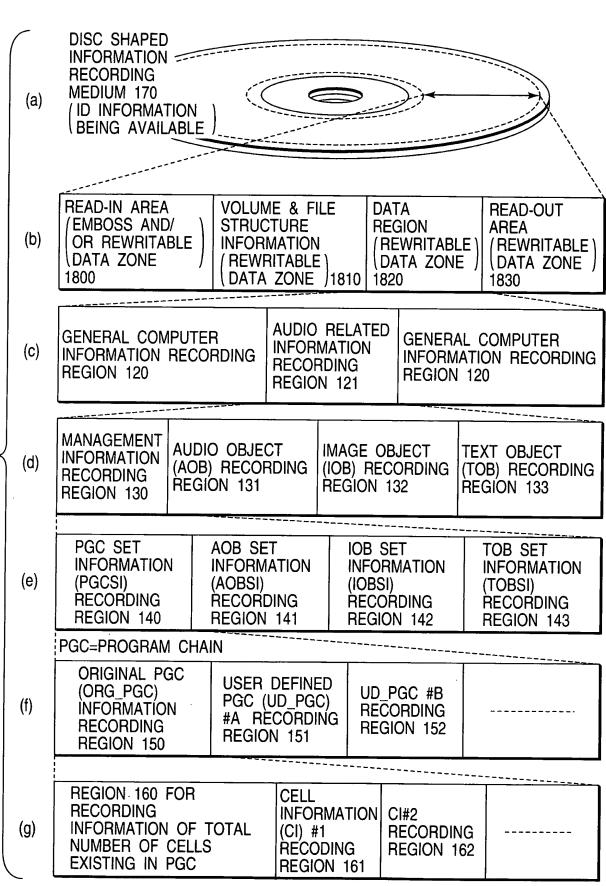
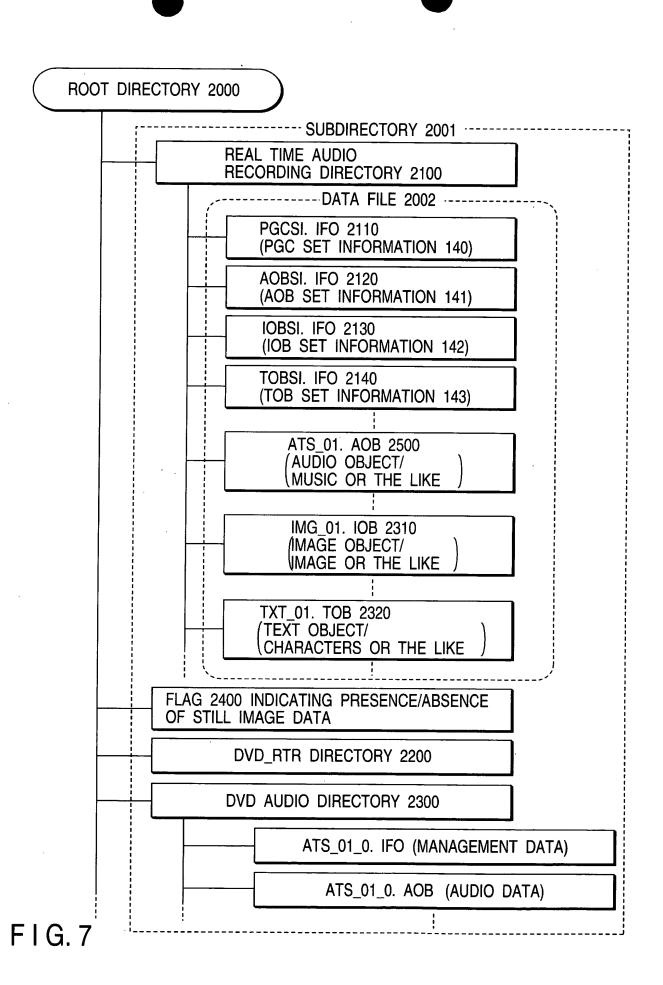


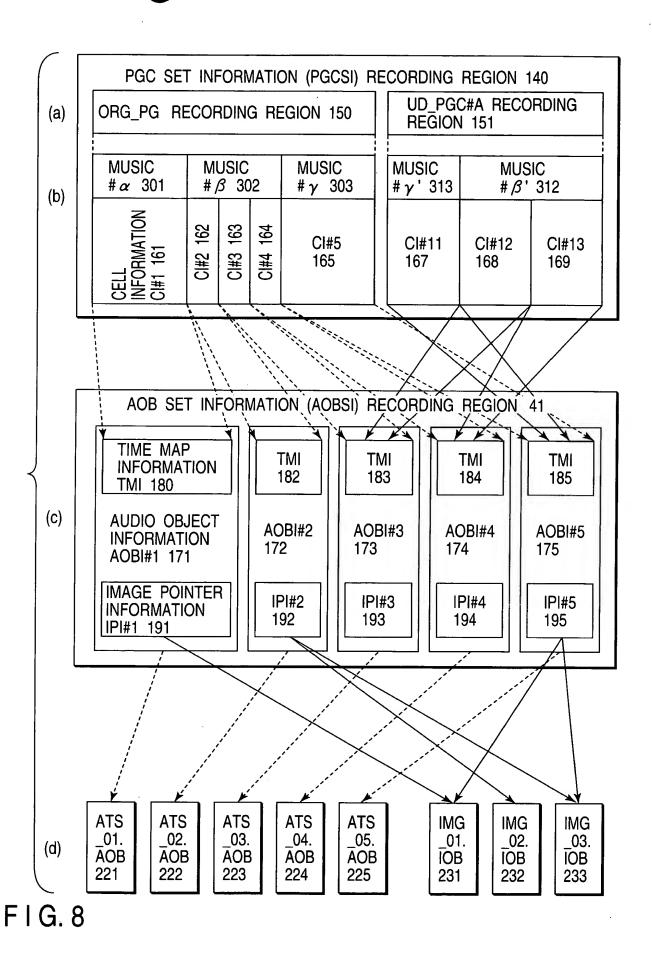
FIG. 4

	AUDIO CARD	(MEMORY (CARD)	100 W	1			FUNCTION		
(a)	INTERNAL CONTROL CONTROL AUT	1 102 FOR F ITROL PROG ATED TO HENTICATION HANGE & 1/0 CESSING	ID 8	RD SPEC & KEY ORMATIO CORDING GION (RA	N N	APPLICATION DATA RECORDING REGION (RAM) 104				
(b)	BOOT INFORMATION REGION 110	FILE ALLOCATI TABLE (F. RECORDII REGION	AT) NG	INTER	NAL II	CTORY NFORMAT REGION				
						1				
(c)	GENERAL COMI INFORMATION F REGION 120			RMATIC RDINC				AL COMPUTER ATION RECORDING 120		
(d)	RECORDING	ORMATION (AOB) RECOR CORDING (BEGION 131								
(e)	PGC SET INFORMATION (PGCSI) RECORDING REGION 140	(AOBSI) RECOR	FORMATION INFORMATION INFORMOBSI) (IOBSI) (TOBSI) CORDING RECORDING RECORDING					DB SET FORMATION DBSI) ECORDING EGION 143		
	PGC=PROGRAM	CHAIN								
(f)	ORIGINAL PG (ORG_PGC) INFORMATION RECORDING REGION 150	I USER PGC #A RI	R DEFINED (UD_PGC) RECORDING RECORDING REGION 152							
(g)	REGION 160 F RECORDING INFORMATION NUMBER OF C EXISTING IN P	(CI) :	ORMATION CI#3) #1 REC		CI#2 RECORDIN REGION 1					

F I G. 5







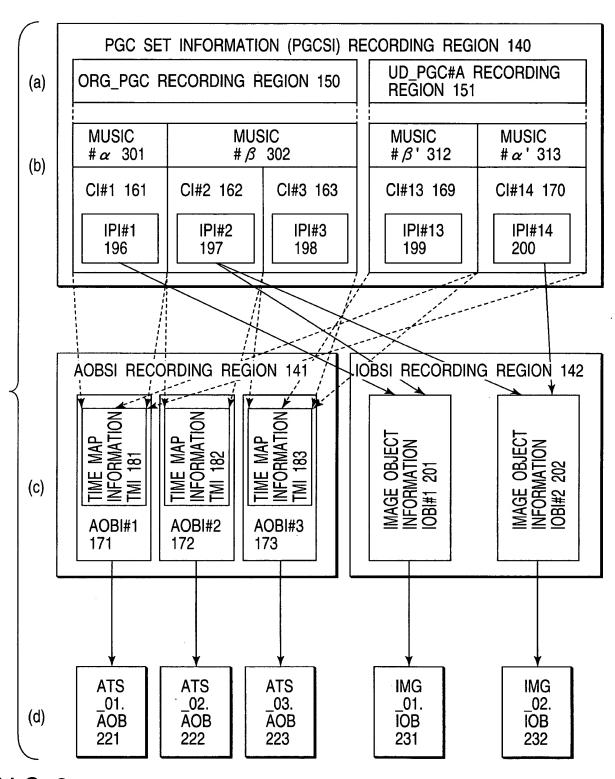
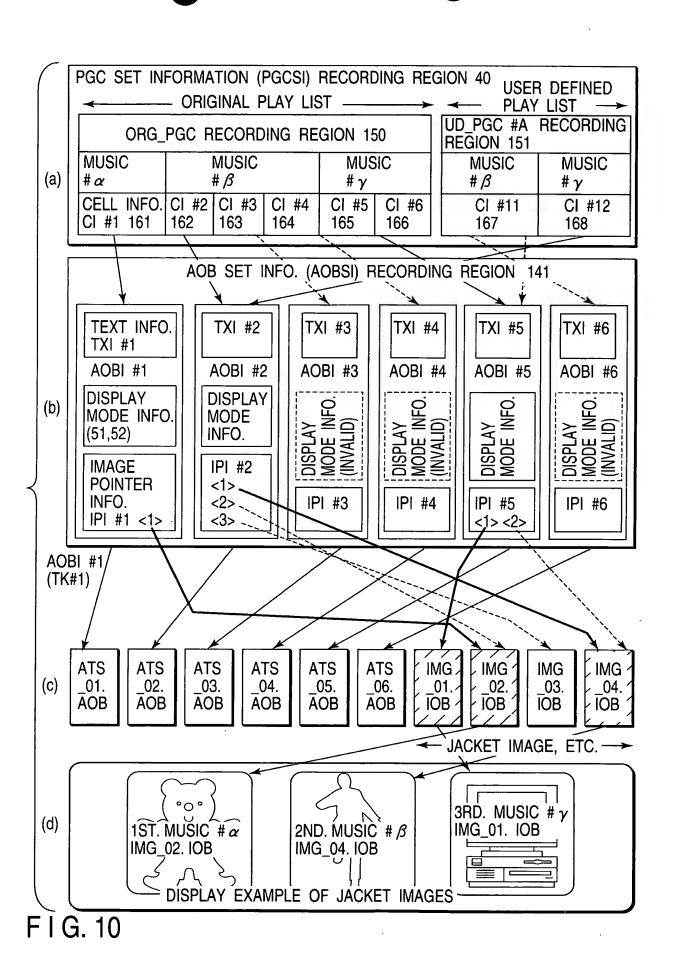
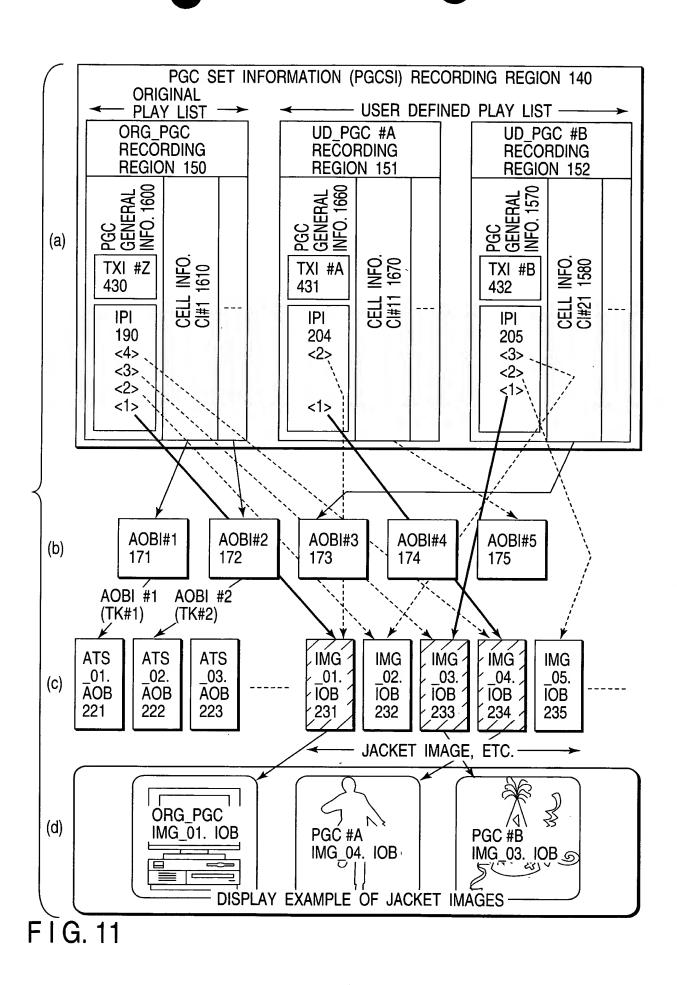
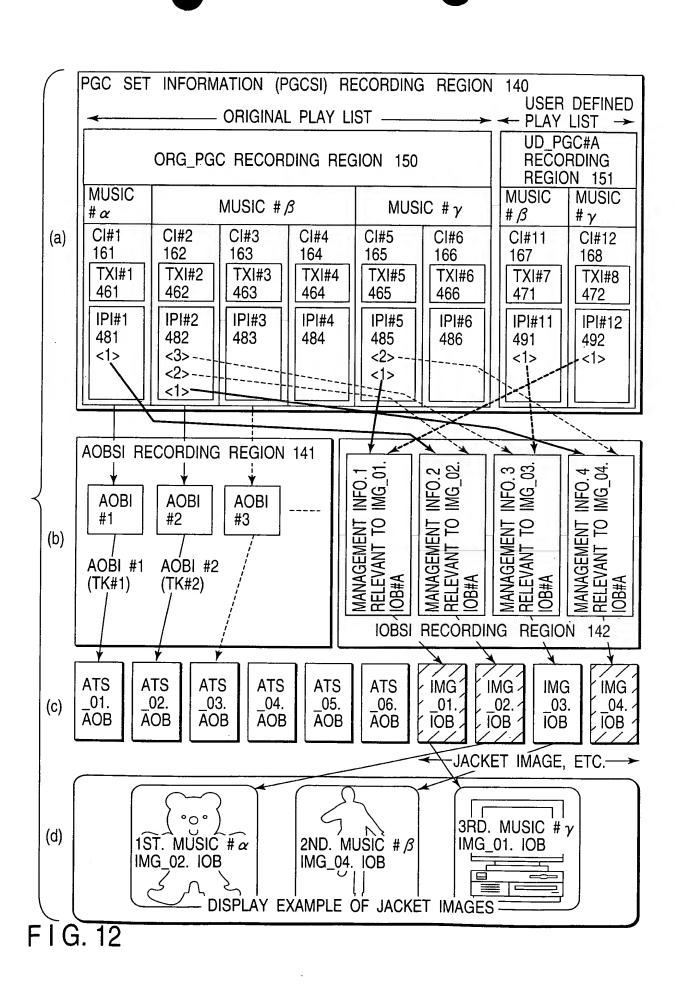


FIG. 9







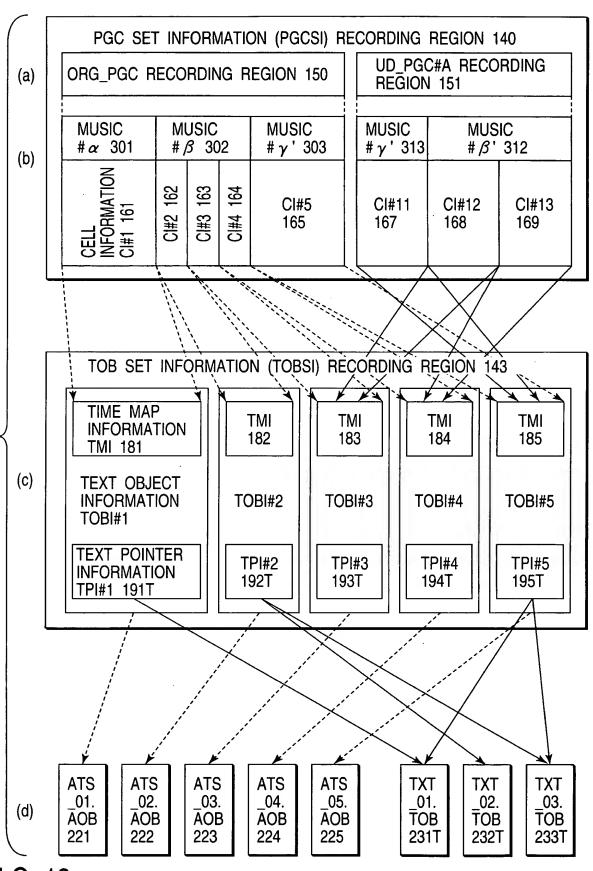


FIG. 13

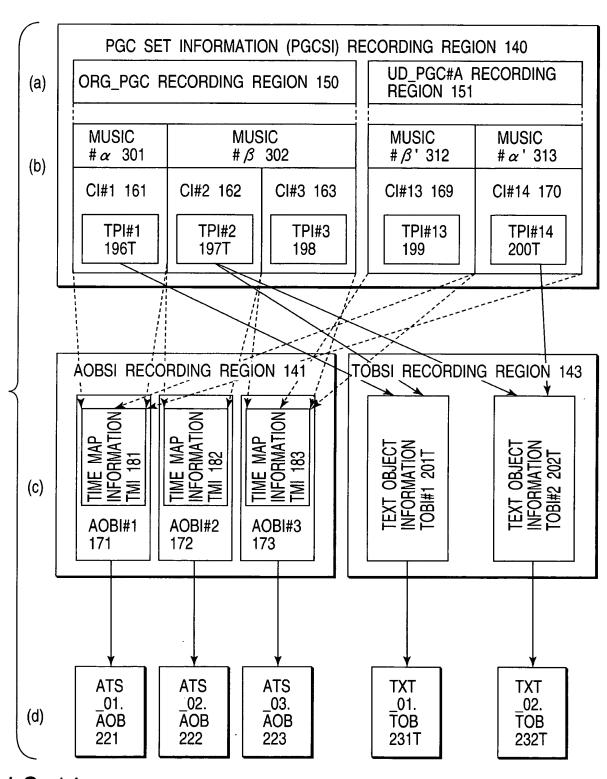


FIG. 14

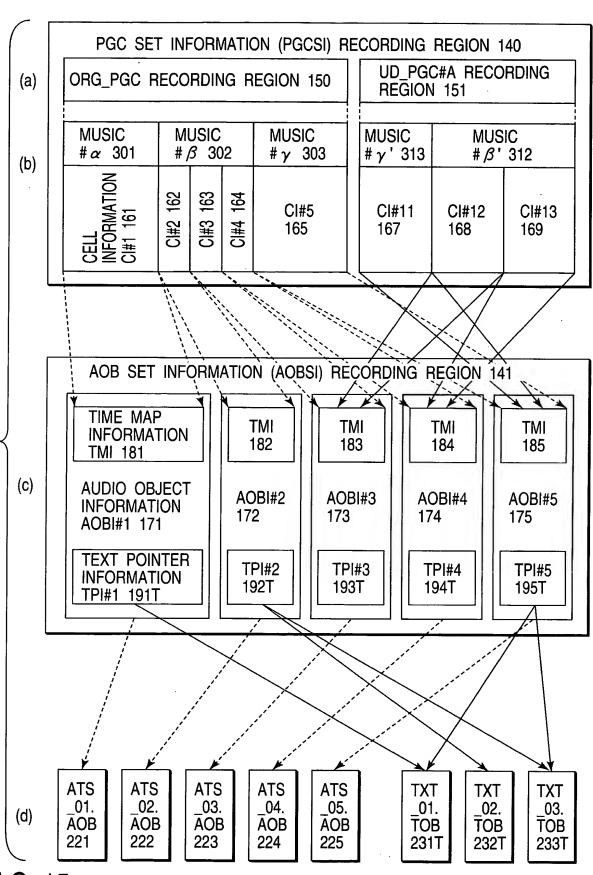


FIG. 15

	(a)	IOBSI. IFO FILE 2130 (IMAGE OBJECT SET INFORMATION RECODING REGION 142)										l 142)	
		DATA SIZE WITH FIXED LENG	DA SIZ GTH FIX	E W	ITH LENGTH	DAT SIZE FIXE	N	/ITH LENGTH				TA E WITH ED LENGTH	
	(b)	MANAGEMENT CO		MANAGEMENT MANAGINFO. 1 INFO. CONCERNING CONCI		2 ERNING			INI	ANAGEMENT FO. 9 DNCERNING G_999. IOB			
	(c)	GE	AGE OI ENERAL BS_GI	INFO				IMAGE OBJECT SET BIT MAP INFO. 12*					
	(d)	NUMBER (RECORDE STILL IMA (IOB) FILE	D GE	FINAL NUMBER INFO. ON RECORDED STILL IMAGE (IOB) FILE 22			1	MANAGEMENT (NFO. ON STILL (MAGE ID INFO. S			BIT MAP INFO. ON STILL IMAGE (IOB) FILE SPECIFIED FOR REPRESENTATIVE IMAGE 27		
				<u> </u>	· ·		****						
	(e)	FLAG FOR DISCRIMINATING RECORDED/UNRECORDED STATE (OR DATA PRESENCE/ABSENCE FLAG) OF IMG_01. IOB 41*		PRESENCE/ABSENCE FLAG) 42*	FLAG FOR DISCRIMINATING RECORDED/UNRECORDED STATE OF IMG 03 108 /OR DATA		FLAG FOR DISCRIMINATING	RECORDED/UNRECORDED STATE OF IMG_04. IOB (OR DATA PRESENCE/ABSENCE FLAG) 44*	FLAG FOR DISCRIMINATING RECORDED/UNRECORDED STATE	PRESENCE/ABSENCE FLAG) 45*		FLAG FOR DISCRIMINATING RECORDED/UNRECORDED STATE OF IMG_0999. IOB (OR DATA PRESENCE/ABSENCE FLAG) 49*	
\ F	ÌG	FLAGS (TOT	INDICA ALLY M	TING	PRESE GED BY	NCE FIL	/AE	SENCE F SUBD	OF STIL	L IM	1AGE 2400)	DATA	

F I G. 16

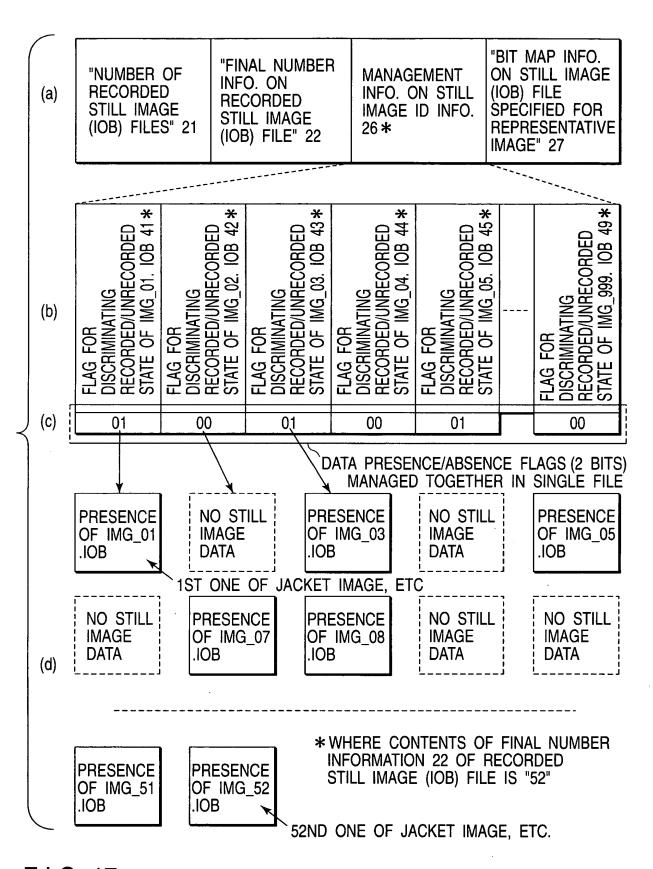


FIG. 17

_										
	IOBSI. IFO FILE 2130 (IMAGE OBJECT SET INFORMATION RECODING REGIO									
(a)	DATA SIZE WITH FIXED LENGTH	DATA SIZE W FIXED L	ITH :	DATA SIZE V FIXED				TA E WITH ED LENGTH →		
	IOBSI MANAGEMENT INFO. 10	INFO. 1	i Rning	INFO.	GEMENT 2 ERNING 2. IOB		INI	MANAGEMENT INFO. 9 CONCERNING IMG_999. IOB		
(b)		 -								
	GENE	OBJEC RAL INFO GI · 11				IMAGE OB BIT MAP I				
(c)										
	NUMBER OF RECORDED STILL IMAGE (IOB) FILES 2	CORDED RECORDED			BIT MAP ON UNR STILL IM (IOB) FIL	ECORDED AGE	ON S' (IOB) SPECI	FIED FOR ESENTATIVE		
(d)										
(e)	FLAG 31 FOR ENABLING (OR DISABLING) DESIGNATION OF REPRESENTATIVE IMAGE, JACKET IMAGE, OR THE LIKE, FOR IMG_01. IOB FLAG 32 FOR ENABLING (OR DISABLING)	DESIGNATION OF REPRESENTATIVE IMAGE, JACKET IMAGE, OR THE LIKE, FOR IMG_02. IOB	FLAG 33 FOR ENABLING (OR DISABLING) DESIGNATION OF REPRESENTATIVE MAGE. JACKET IMAGE. OR THE LIKE.	FOR IMG_03. IOB FLAG_34 FOR ENABLING (OR DISARLING)	DESIGNATION OF REPRESENTATIVE IMAGE, JACKET IMAGE, OR THE LIKE, FOR IMG_04. IOB	FLAG 35 FOR ENABLING (OR DISABLING) DESIGNATION OF REPRESENTATIVE MAGE, JACKET IMAGE, OR THE LIKE, EOR IMG OF 10R		FLAG 39 FOR ENABLING (OR DISABLING) DESIGNATION OF REPRESENTATIVE IMAGE, JACKET IMAGE, OR THE LIKE, FOR IMG_999. IOB		

F I G. 18

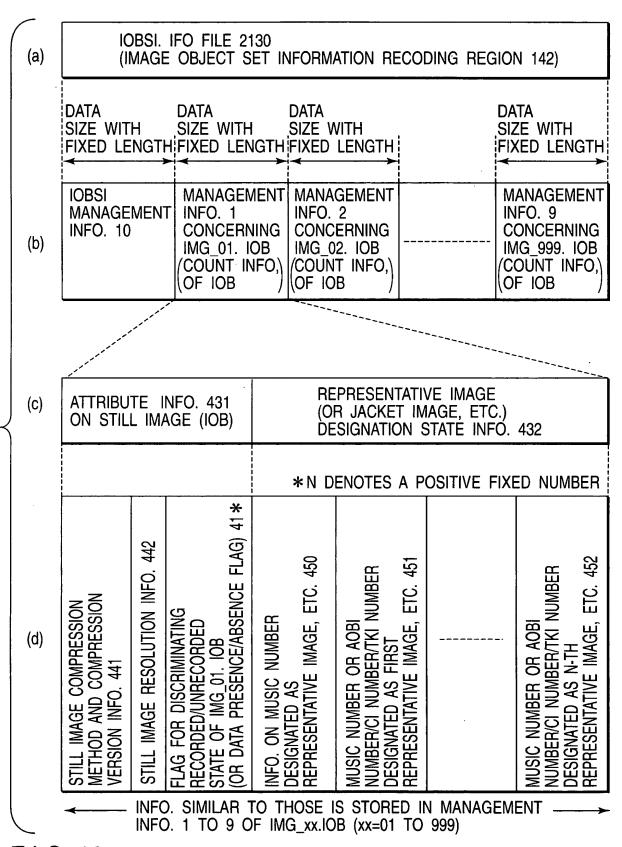
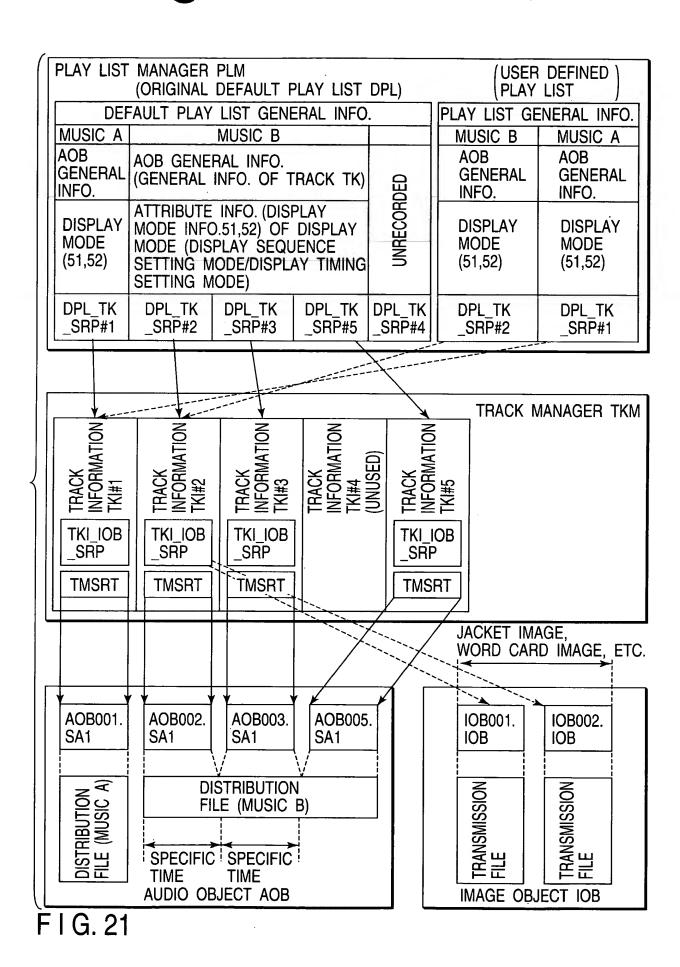


FIG. 19

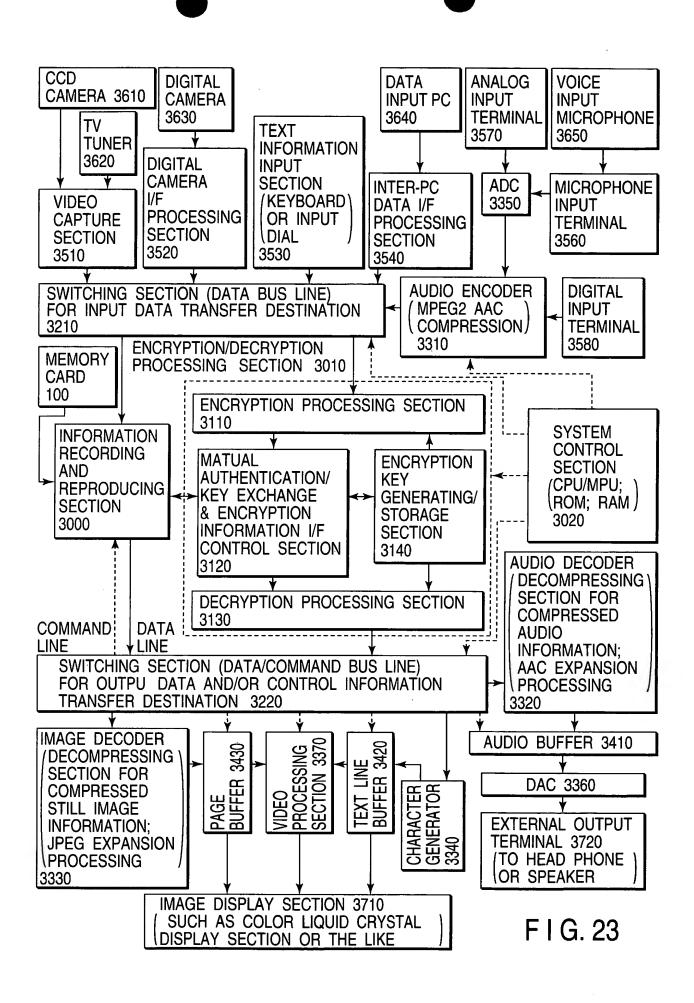
/										
	(a)	IMAGE POINTER IN	IFO. (IPI) 40 IN A	OBI	(TKI) AT H	HEAD OF N	/USIC	NUMBER		
	(b)	DISPLAY MODE ON STILL IMAG OF MUSIC NUN PGCs, OR PLAY		DISPLAY MODE INFO. 47 ON STILL IMAGE IN UNITS OF MUSIC NUMBERS, PGCs, OR PLAY LISTS						
		• - - - -					 			
		DISPLAY MOD	ED .s.	IMAGE JSIC MAY		IMAGE SIC MAY				
		STILL IMAGE DISPLAY SEQUENCE SET MODE INFO. 51	STILL IMAGE DISPLAY TIMING SET MODE INFO 52		STILL IMAGES DISPLAYED MUSIC NUMBERS, PGCs, TS 60	STILL OF ML		DISPLAYED STILL IN WORDS OF MUSIC) 69		
	(c)	DESIGNATION OF DISPLAY METHOD (SEQUENTIAL, RANDOM, SHUFFLE, BROWSE, ETC.)	SETTING OF DISPLAY TIMING SYNCHRONIZED WITH BOUNDAR OF AUDIO FRAM OF AOB MANAG BY AOBI (TKI)	IES	NUMBER OF STILL IM IN UNITS OF MUSIC I OR PLAY LISTS 60	INFO. ON 1ST DISPLAYED (TEXT SUCH AS WORDS BE CONTAINED) 61		INFO. ON M-TH DISPL (TEXT SUCH AS WOR BE CONTAINED) 69		
			NOTES A F	OTES A POSITIVE FIXED NUMBER						
	(d)	FLAG 71 FOR DES REPRESENTATIVE IMAGE, ETC., IN U NUMBERS, PGCs,	IMAGE, JACKET INITS OF MUSIC	ILL IMAGE FILE NUMBER OF M-TH SPLAYED STILL IMAGE IN MUSIC IMBER, IN PGC, OR IN PLAY LISTS						
1										

F I G. 20



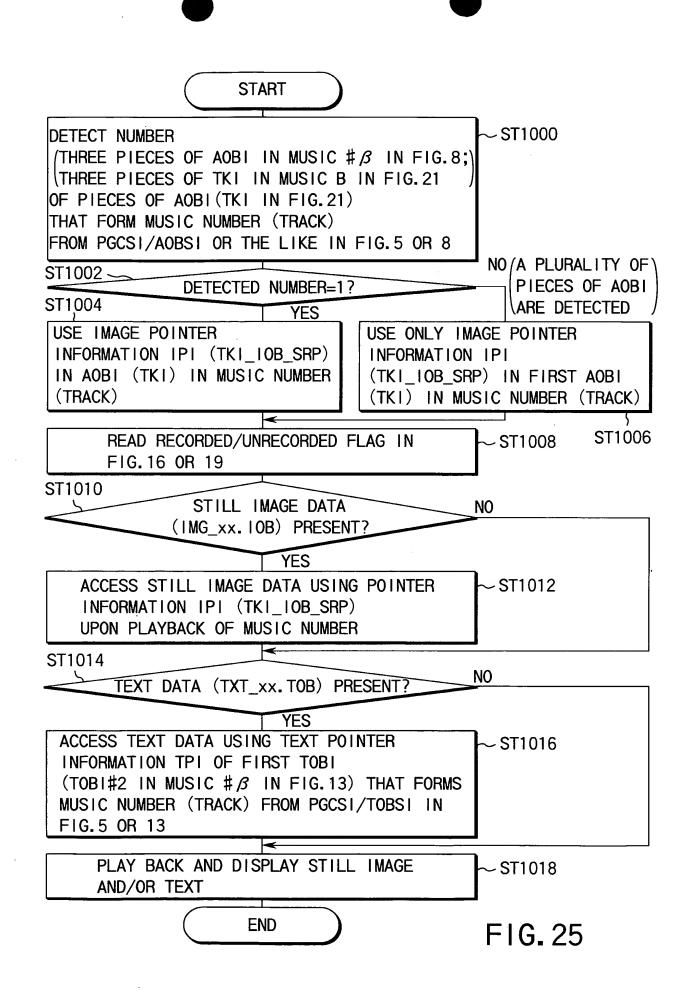
	(a)	AUDIO OBJECT (AOB) FILE 2500 (ATS_01. AOB OR THE LIKE)										
	(b)	AUDIO OBJECT UNIT AOBU 2510		AOBU 2520				AOBU 2530				
	(c)	AUDIO FRAME (AOB FRAME) 2610	F	OB RAME 620					AOB FRAME 2630			
	(d)	ADTS HEADER 2710 FIXED HEADER 2720 (INCLUDING AOB SYNCHRONIZING WORD ADTS HEADER 2710 VARIABLE HEADER 2730		COMPI INFOR 2740	RESSE	D (ACC	C) AUD ORDIN	OIO G REG	ilON			
	(e)	NON-ENCRYPTING REGION 2810				ENCRYPTING BEUDINIT #d			REGION 'g'			

F I G. 22



START MUTUAL AUTHENTICATION PROCESSING BETWEEN MEDIUM AND DEVICE (MEDIUM ID AND DEVICE ID CHECK) <ST10> GENERATE COMMON ENCRYPTION KEY (DECRYPTION KEY) BETWEEN MEDIUM AND DEVICE (BASED ON RANDOM NUMBER), AND STORE GENERATED KEY <ST12> ENCRYPTION PROCESSING FOR AUDIO (VOICE) AND/OR IMAGE INFORMATION BY COMMON ENCRYPTION KEY <ST14> DURING RECORDING > PROCESSING FOR TRANSFERRING ENCRYPTED AUDIO/IMAGE INFORMATION TO MEDIUM DURING REPRODUCING > PROCESSING FOR TRANSFERRING ENCRYPTED AUDIO/IMAGE INFORMATION TO DEVICE <ST16> DECRYPTION PROCESSING FOR AUDIO/IMAGE NFORMATION USING COMMON ENCRYPTION KEY INFORMATION <\$T18> **END**

F I G. 24



ST2012

START -ST2000 GENERATE NEW MUSIC (TRACK) $\sharp \alpha$ HAVING AOBI (TKI) #1 AND NEW MUSIC (TRACK) #2 HAVING AOBI (TKI) #8 BY DIVIDING MUSIC $\#\alpha$ HAVING AOBI (TKI) #1 IN FIG. 4 ST2002 DOES IMAGE POINTER INFORMATION IPI#1 CONTAINED NO IN MUSIC # a BEFORE DIVIDE PROCESS CONTAIN DESCRIPTION OF DISPLAY MODE INFORMATION (51, 52) ST2004 YES TRANSPLANT (COPY) DISPLAY MODE INFORMATION OF IMAGE POINTER INFORMATION IPI#1 CONTAINED IN MUSIC # a BEFORE DIVIDE PROCESS TO NEW MUSIC $\#\alpha$ AND MUSIC # & GENERATED BY DIVIDE PROCESS ST2006 DOES MUSIC #α BEFORE NO DIVIDE PROCESS CONTAIN DESCRIPTION OF TEXT POINTER INFORMATION ST2008 TPI? YES TRANSPLANT (COPY) TEXT POINTER INFORMATION TPI#1 CONTAINED IN MUSIC $\#\alpha$ BEFORE DIVIDE PROCESS TO NEW MUSIC $\#\alpha$ AND MUSIC $\#\zeta$ GENERATED BY DIVIDE PROCESS ST2010 SET TRANSPLANTED (COPIED) DISPLAY MODE INFORMATION AND/OR TEXT POINTER INFORMATION IN EACH AOBI (TKI) OF NEWLY GENERATED MUSIC $\#\alpha$ AND MUSIC $\#\zeta$ SUCH INFORMATION MAY BY SET NOT ONLY IN AOBI HAVING DISPLAY-VALID IPI BUT ALSO IN AOBI INCLUDING AOBI HAVING DISPLAY-INVALID IPI PLAY BACK AND DISPLAY STILL IMAGE AND/OR TEXT (THAT CAN INCLUDE JACKET IMAGE, WORD CARD, ETC.) WHILE SWITCHING THEM ON THE BASIS OF ALL PIECES OF TRANSPLANTED (COPIED) INFORMATION (INCLUDING DISPLAY MODE INFORMATION AND/OR TEXT INFORMATION)

END

FIG. 26

START ST3000

GENERATE MUSIC \sharp_{γ} BY COMBINING MUSIC (TRACK) \sharp_{α} HAVING AOBI (TKI) \sharp_1 AND MUSIC (TRACK) \sharp_{β} HAVING AOBI (TKI) \sharp_2 (IN THIS CASE, IN EXAMPLE IN FIG.1, TWO PIECES OF STILL IMAGE INFORMATION IMG_03. IOB AND IMG_04. IOB OF MUSIC \sharp_{β} ARE MERGED WITH TWO PIECES OF STILL IMAGE INFORMATION IMG_01. IOB AND IMG_02. IOB SO THAT MUSIC \sharp_{γ} HAS FOUR PIECES OF IMAGE INFORMATION IMG_01. IOB TO IMG_04. IOB

USE DISPLAY MODE INFORMATION (51,52 IN FIG.20) IN IMAGE POINTER INFORMATION IPI OF AOBI #1 OF MUSIC # α TO BE DISPLAYED FIRST IN COMBINED MUSIC (TRACK) # γ , AS DISPLAY MODE INFORMATION OF COMBINED MUSIC # γ

ST3004 DOES DISPLAY MODE ST3002

INFORMATION USED INCLUDE DESCRIPTION OF DISPLAY

SEQUENCE SET MODE INFORMATION

ST3006 (51 IN FIG. 20)?

YES

DETERMINE DISPLAY METHOD (SEQUENTIAL, RANDOM, SHUFFLE, BROWSE, ETC.)

DETERMINE DISPLAY METHOD (SEQUENTIAL, RANDOM, SHUFFLE, BROWSE, ETC.) OF STILL IMAGE (IMG_xx. IOB) OF MUSIC $\#\gamma$ IN ACCORDANCE WITH CONTENTS OF DISPLAY SEQUENCE SET MODE INFORMATION

ST3008

DOES DISPLAY MODE

INFORMATION USED INCLUDE DESCRIPTION OF

DISPLAY TIMING SET MODE INFORMATION

ST3010

(52 IN FIG. 20)?

YES

DETERMINE DISPLAY TIMING

DISPLAY SWITCHING TIMING OF STILL IMAGE IS SYNCHRONIZED WITH BOUNDARY BETWEEN AUDIO FRAMES OF MUSIC $\#_{\gamma}$ TO BE PLAYED BACK, DISPLAY OF STILL IMAGES IS SWITCHED AT GIVEN TIME INTERVALS USING TIMER, ETC.

OF STILL IMAGE (IMG_xx.IOB) OF MUSIC \sharp_{γ} IN ACCORDANCE WITH CONTENTS OF DISPLAY TIMING SET MODE INFORMATION

PLAY BACK AND DISPLAY STILL IMAGES

(THAT CAN INCLUDE TEXT INFORMATION SUCH AS WORDS OR THE

WHILE SWITCHING THEM BY DETERMINED DISPLAY METHOD (DISPLAY ORDER) AND/OR AT DETERMINED DISPLAY TIMING UPON PLAYBACK OF MUSIC $\sharp \gamma$

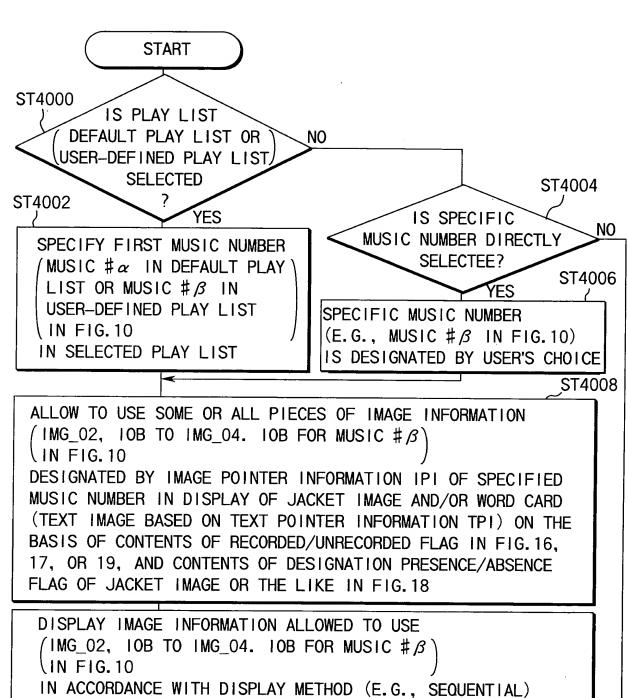
ST3012

END

FIG. 27

NO

NO



IN ACCORDANCE WITH DISPLAY METHOD (E.G., SEQUENTIAL)
DESIGNATED BY DISPLAY SEQUENCE SET MODE INFORMATION 51
CONTAINED IN DISPLAY MODE INFORMATION IN FIG. 10 OR 20,
AND DISPLAY TIMING

(E.G., IN UNITS OF PREDETERMINED NUMBER OF AUDIO FRAMES)
DESIGNATED BY DISPLAY TIMING SET MODE INFORMATION 52
INCLUDED IN DISPLAY MODE INFORMATION, UPON PLAYBACK OF
SELECTED MUSIC NUMBER (MUSIC # 3 IN FIG. 10)

ST4010

END

FIG. 28